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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,684	01/14/2004	Michael Patrick Galligan	4882	4080

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ENGELHARD CORPORATION
101 WOOD AVENUE
ISELIN, NJ 08830

EXAMINER

HAILEY, PATRICIA L

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/757,684

Applicant(s)

GALLIGAN ET AL.

Examiner

Patricia L. Hailey

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 11-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 01/14/04, 05/02/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-10, drawn to a coated metal substrate, classified in class 502, subclass 439.
 - II. Claims 11-23, drawn to a method for preparing a coated metal substrate, classified in class 427, subclass 115.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be prepared by another and materially different process, such as by chemical or physical vapor deposition, or by plasma deposition.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Richard Negin on April 15, 2005 (with a follow-up call on June 27, 2005), a provisional election was made with traverse to prosecute the invention of Group I, claims 1-10. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-23 are withdrawn from

further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. *Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.*

Claim 4 is rejected for reciting the trademark "Hastelloy", which renders the claim indefinite since the relationship between a trademark and the product it identifies is sometimes indefinite, uncertain or arbitrary. The formula or characteristics of the product may change from time to time and yet it may be sold under the same trademark. In the claims, every element or ingredient of the product should be set forth in positive, exact, intelligible language, so that there will be no uncertainty as to what is

meant. Arbitrary trademarks which are liable to mean different things at the pleasure of manufactures do not constitute such language. See Ex parte Kattwinkel, 12 U.S.P.Q. 11 and MPEP 608.01(v).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. ***Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Blanchard et al. (U. S. Patent No. 4,492,769).***

Blanchard et al. teach a pollution control catalyst comprising a support coated and/or impregnated with at least one platinum group metal (col. 1, lines 62-68) that can be in any convenient particulate form, or in the form of a metallic or ceramic monolith coated with a layer of suitable oxide. See col. 2, lines 13-17 of Blanchard et al.

Examples of the particulate support include alumina and aluminosilicates, as well as those consisting of one or more oxides coated onto a metallic or ceramic substrate; examples of said oxides include those of aluminum and silicon. See col. 2, lines 18-22 and lines 55-67 of Blanchard et al. This disclosure is considered to read upon the claim limitation "alumina-silicate coating thereon...".

Examples of the metallic substrate include those marketed under the trademark

"FECRALLOY" and carbon steel. See col. 3, lines 3-19 of Blanchard et al.

Blanchard et al. also disclose the employment of platinum group metals (col. 3, lines 49-54), and that Patentees' catalyst has "a stability over time which is considerably improved for eliminating the harmful compounds contained in the exhaust gases and, particularly, carbon monoxide, unburnt hydrocarbons, and, if appropriate, the oxides of nitrogen which are present therein." See col. 5, lines 36-41 of Blanchard et al.; this disclosure is considered to read upon the limitation "three-way conversion catalyst", as defined by Lachman et al. (U. S. Patent No. 5,244,852; col. 1, lines 11-17; cited herein to merely provide technological background).

In view of these teachings, Blanchard et al. anticipate claims 1-5.

10. *Claims 1-5 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Lachman et al. (U. S. Patent No. 5,244,852).*

Lachman et al. disclose a three-way catalyst system (col. 1, lines 11-17) comprising molecular sieves, platinum, and/or palladium, affixed or integrated into and/or onto a substrate wherein said system is placed in a stream comprised substantially of nitrogen oxides, hydrocarbons, and carbon oxides. See col. 2, lines 3-12 of Lachman et al.

The molecular sieves consists of zeolites and can be admixed with alumina in a slurry form. See col. 2, lines 13-40 of Lachman et al. This disclosure is considered to read upon the claim limitations regarding the "alumina silicate coating having alumina

particles dispersed therein.”

A substrate structure is coated with this slurry, followed by application of the noble metal catalyst. See col. 2, lines 41-46 of Lachman et al.

Examples of the substrate, which can take the shape of honeycombs, slabs, and molded objects of various geometries (considered to read upon the limitation “expansion cone”), include steel, stainless steel, titanium, and various alloys of metals with stainless steel. See col. 4, lines 55-61 of Lachman et al.

In view of these teachings, Lachman et al. anticipate claims 1-5 and 9.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. *Claims 6-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blanchard et al. (U. S. Patent No. 4,492,769) or Lachman et al. (U. S. Patent No. 5,244,852).*

Both Blanchard et al. and Lachman et al. are relied upon for their teachings in the above respective 102(b) rejections. Although these references meet the limitations regarding the claimed substrate, the coating thereon, and the three-way catalyst, neither reference specifically discloses any dimensions of the "alumina particles" or the "expansion cone".

However, in view of the prior art, these limitations are considered result effective variables, as it would have been obvious to select the claimed particle size ranges for the alumina particles in an endeavor to achieve optimal contact between the claimed coating and the catalyst deposited thereon. With respect to the claimed dimensions of the "expansion cone", it would have been within the level of ordinary skill in the art to

select a cone with optimal dimensions, in and endeavor to maximize contact between the gases to be treated and the overall catalyst system. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 U.S.P.Q. 215 (CCPA 1980).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

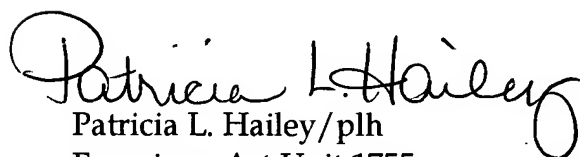
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Hailey whose telephone number is (571) 272-1369. The examiner can normally be reached on Mondays-Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

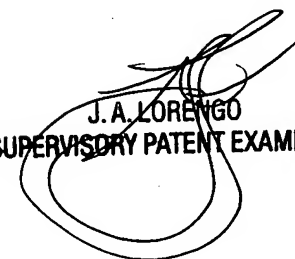
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 1700 Receptionist, whose telephone number is (571) 272-1700.

Art Unit: 1755

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patricia L. Hailey/plh
Examiner, Art Unit 1755
June 27, 2005



J. A. LORENZO
SUPERVISORY PATENT EXAMINER